

## ABSTRACT OF THE DISCLOSURE

The invention provides novel compositions comprising a Smad protein and an isolated protein component of the proteasome-mediated degradation pathway. The invention also provides novel compositions comprising a Smad1 protein and a substrate for proteasome-mediated degradation. The invention also provides methods of screening for compounds that modulate the interaction between the proteins comprising these compositions. The invention also provides methods of screening for compounds that modulate the activity of the proteins comprising these compositions. The invention also provides methods of detecting proteasome-mediated degradation of novel Smad interacting proteins. A further aspect of the invention is a kit for detecting proteasome-mediated degradation of novel Smad interacting proteins. The invention also provides methods of treating diseases which are associated with aberrant levels of activity of a TGF- $\beta$  superfamily member.

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